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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,843

11/30/2004

Gerhard Bonnet

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EXAMINER

BRAINARD, TIMOTHY A

ART UNIT

PAPER NUMBER

3662

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,843	Applicant(s) BONNET, GERHARD	
	Examiner TIMOTHY A. BRAINARD	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/18/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The terminal disclaimer filed on 3/5/2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/501842 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 and 14 are rejected under 35 U.S.C. 103(a) as being anticipated by Nakamura (Optical Frequency Domain) in view of Shanttil (US 5955992). Nakamura teaches (Claim 1) a device for local object distance measurement comprising a frequency shifted feedback radiation source for object irradiation with irradiation that can be used for distance measurement and a position-sensitive object detection sensor (abs), wherein and the position-sensitive object detection sensor detects beat intensity from the object and incoming irradiation not from the object (experiment).

Nakamura does not teach the frequency shifted feedback radiation source for object irradiation includes a means for increasing radiation frequency component beat intensity and the frequency of the seed laser frequency is adapted to specific distances.

Shanttil teaches the frequency shifted feedback radiation source for object irradiation includes a means for increasing radiation frequency component beat intensity (fig 1, item 110 and col 6, lines 22-50).

It would have been obvious to modify Nakamura to include the frequency shifted feedback radiation source for object irradiation includes a means for increasing radiation frequency component beat intensity because it is one of multiple methods to increase the intensity of the feedback laser with no new or unexpected result. It would have been obvious to modify Nakamura to include the frequency of the seed laser frequency is adapted to specific distances because it would allow a signal to be sent to an operator when within a specific distance.

Claim 2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil as applied to claim 1 above, and further in view of Ito (US 6,856,723).

Ito teaches the means for increasing radiation frequency component beat intensity is configured as a means for non-stochastic increase of radiation frequency component beat intensity (col 3, lines 1-5) but does not teach any element of claim 2 on or below line 4 claim 2.

It would have been obvious to modify Nakamura in view of Shanttil to include the means for increasing radiation frequency component beat intensity is configured as a means for non-stochastic increase of radiation frequency component beat intensity because it is expected that the increase of radiation frequency component beat intensity would be non-stochastic.

Claims 3-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil as applied to claim 1 and 14 above, and further in view of Phillips et al (US 5835199).

Phillips teaches the frequency shifted feedback radiation source is a laser and the means for increasing radiation frequency component beat intensity (col 4, lines 10-19), a means to change the seed frequency gradually (col 18, lines 10-53) or a filter used for filtering the beat intensity and the filtering of the filtered alternating signal portions (col 10, lines 28-35).

It would have been obvious to modify Nakamura in view of Shanttil to include the frequency shifted feedback radiation source is a laser and the means for increasing radiation frequency component beat intensity, a means to change the seed frequency gradually, or a filter used for filtering the beat intensity and the filtering of the filtered alternating signal portions each is one of multiple design choices with no new or unexpected result.

Claims 7, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil as applied to claim 1 above, and further in view of Huang (US 6,594,061).

Huang teaches signal amplification for conditioning the object detection sensor signals amplification step behind the filtering (fig 1).

It would have been obvious to modify Nakamura in view of Shanttil to include signal amplification for conditioning the object detection sensor signals amplification

step behind the filtering because it is one of multiple design choices with no new or unexpected results.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil as applied to claim 1 above, and further in view of Plava (US 2004/0257266).

Plava teaches a stage for determining the distance described in claim 8 (abs), and a stage for determining the distance described in claim 9 using is configured for distance measurement for purposes of achieving a maximum value of the object detection, or (claim 10) a stage for modifying the seed frequency along with the time is used and an object detection sensor signal evaluation stage as a distance-related measurement value determines a value representative of a time for achieving a preset object signal signature as described in claim 10 (paragraph 89).

It would have been obvious to modify Nakamura in view of Shanttil to include a stage for determining the distance described in claim 8 and 9 using is configured for distance measurement for purposes of achieving a maximum value of the object detection, or a stage for modifying the seed frequency along with the time is used and an object detection sensor signal evaluation stage as a distance-related measurement value determines a value representative of a time for achieving a preset object signal signature as described in claim 10 because they are one of multiple design choices with no new or unexpected result.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil.

The combination of Nakamura in view of Shanttil does not teach the position-sensitive is configured for simultaneous and/or temporally close consecutive sequential receiving and/or evaluation of irradiation from receiving the reflected irradiation from the object on the one hand and other light from the object as described in claim 11.

It would be obvious to modify Nakamura in view of Shanttil to include the position-sensitive object detection sensor is as configured in claim 11 because light detector will detect light reflected from an object regardless of the source of the light.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil as applied to claim 1 above, and further in view of Dietz et al (US 6603537).

Dietz teaches the position-sensitive object detection sensor is as configured in claim 12 (col 1, lines 59-67)

It would have been obvious to modify Nakamura in view of Shanttil to include the position-sensitive object detection sensor is as configured in claim 12 because it is one of multiple design choices with no new or unexpected result.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shanttil as applied to claim 1 above, and further in view of Bolton et al (US 6147779).

Bolton teaches the position-sensitive object detection sensor as configured in claim 13 (col 2, lines 30-33).

It would have been obvious to modify Nakamura in view of Shanttil to include the position-sensitive object detection sensor as configured in claim 13 because it is one of multiple designs with no new or unexpected results.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY A. BRAINARD whose telephone number is (571) 272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAB

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662